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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,062	01/24/2001	Hiroshi Tsuda	826.1669/JIM	2276

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EXAMINER	
TO, BAOQUOC N	
ART UNIT	**PAPER NUMBER**
2172	12

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/768,062	TSUDA, HIROSHI	
	Examiner	Art Unit	
	Baoquoc N To	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *17 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-12, 14-15,17,18,20,22-29 and 31-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *13* is/are allowed.

6)☒ Claim(s) *1,3-15,17,18,20,22-29 and 31-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 15, 17-18, 20, 29 and 31 are amended and claims 33-35 are newly added.

2. Claims 1, 3-15, 17-18, 20, 22-29 and 31-35 are pending in this application.

Response to Arguments

3. Applicant's arguments filed 02/17/04 have been fully considered but they are not persuasive.

The applicant's attorney discusses the cited references and the amendment filed on 06/16/04 and presented the proposed amendment to clarify the language of the claim. The proposed amendment such "an inverse URL similarity" is not support by the specification and is not clear on how "an inverse URL calculation" can be achieve without further explain or omitting the elements for example such as formula and it definitions. The examiner interprets "an inverse URL similarity" is the URL calculation in which use to comparison of URL similarity calculation comparison as taught in Kobayakawa.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 15, 17-18, 20, 29, 31-32 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims recited "an inverse URL similarity." Such a limitation is no supported by the specification. Applicant(s) is/are advised to amend the specification or cancel the limitation from the claims. Applicant(s) is/are reminded that no new matter should be added.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 9-12, 14, 20 and 28 as best understood by the examiner are rejected under 35 U.S.C. 103(a) as being unpatentable over Page (US. Patent No. 6,285,999) in view of Mukai (US. Patent No. 6,446,095) and further in view of Kobayakawa et. al. (US. Patent No. 6,119,078).

Regarding on claims 1 and 20, Page teaches a document assigning unit weight the link relation (in order to rank, the weight is determine) and assigning link importance which indicates importance of the document based on the weight link relation to the document (document r(A)=0.4, r(B)=0.3) and r(C)=0.4) (col. 4, lines 49-64); and

Page does not explicitly teach an accessing unit accessing the document based on the link importance and wherein said link importance assigning unit includes:

A URL similarity calculating unit calculating a URL similarity that is a similarity of character string of URL (Uniform Resource Locators) that represent the location of the documents and that is an appearance of written characters of URLs, wherein said link importance assigning unit calculates the link importance based on the inverse URL similarity and the link relation of the document, so that a link weight increases as URL similarity decreases. However, Mukai teaches, "the document analysis mean 805 judges, based on link information in documents stored in the temporary document storage means 102 and contents of the conditional storage means 103, degrees of importance of data corresponding to the link information and instructs the documents means 101 to gain data having degrees not less than "2" of importance" (col. 8, lines 48-54). This teaches means 101 to access the document based the link importance that have the degrees not less than "2". On the other hand, Kobayakawa teaches, "the phrase "a greater number of sequential partial URL character strings" means that even when more partial URL character strings corresponding to each other, unless the arrangement of the partial URL character strings do not match, the similarity is low as the result of the URL comparison..." (col. 11, lines 24-40). This teaches the URL similarity calculating and the calculation is the inverse URL calculation. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the system of Mukai and Page to include the similarity calculation of Kobayakawa in order to allow the search retrieval result under the same root domain.

Regarding on claims 9 and 28, Page teaches a collecting unit collecting the document from a network (col. 3, lines 56-68).

Regarding on claim 10, Page teaches link importance assigning unit causes the weight of the link relation between the documents with a high URL similarity to be decreased (col. 4, line 64).

Regarding on claim 11, Page teaches link importance assigning unit causes the document and whose URL similarity is low to be important (col. 4, lines 64-67).

Regarding on claim 12, Page teaches link importance assigning unit causes the importance of document linked from many document whose URL similarity are high to be decreased (col. 4, lines 63-65).

Regarding on claim 14, Page teach the URL similarity is determined based on characters of a URL containing a server address (col. 4, lines 60-63).

6. Claims 3-4, 6, 22-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Page (US. Patent No. 6,285,999) in view of Mukai (US. Patent No. 6,446,095) and further in view of Kobayakawa et. al. (US. Patent No. 6,119,078) further in view of Chong et al. (US. Patent No. 6,366,908).

Regarding on claims 3 and 22, Page and Mukai and Kobayakawa teach the subject matter except for a keyword extracting unit extracting text parts from the documents and extracting a keyword from the document contents. However, Chong teaches, "the keyword extracting device 12" (col. 4, lines 24-25). In addition, Chong teaches, "the keyfact index device 12 indexes the extracted keyfacts with frequency information" (col. 4, lines 66-67). This teaches the claimed keyword extracting unit extracting parts from the document and extracting keyword from the document. Therefore, it would have been obvious to one ordinary skill in the art at the time of the

invention was made to combine the teaching of Mukai and Page and Kobayakawa and Chong because extracting of part of text and the keywords would allow the system to compare the keywords requested with the extracted part of text and the keywords stored in the database in order to retrieve the document.

Regarding on claims 4 and 23, Page and Mukai do not explicitly teach keyword extracting unit calculates an occurrence frequency of the keyword in the document, and wherein said keyword extracting unit further comprises:

a keyword- document correlation calculating unit calculating the correlation of the keyword and the document based on the link importance and the occurrence frequency of the keyword. However, Page teaches the link importance. On the other hand, Chong teaches, "the frequency calculating means calculates a frequency of various keyfacts. The various keyfacts are included in the document collection, and the document frequency is the number of documents contained keyfacts" (col. 2, lines 55-59). This teaches the calculation of keyword and frequency of the keywords in the document. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to combine the teaching of Page and Mukai and Chong because calculating the correlation of keywords and the document based on link importance and the occurrence frequency of the keyword would allow the system to retrieve more precise search results.

Regarding on claims 6 and 25, Page teaches the subject matter except for a document type determining unit determining a document type of the document based on the URL similarity, the number of links from the document (back link) (col. 4, lines 1-2),

and the number of links to the content (col. 4, lines 2-3), wherein said keyword – document correlation calculating unit selects the document based on the documents type and calculates the correlation for the selected document (col. 4, lines 5-10).

7. Claims 5 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Page (US. Patent No. 6,285,999) in view of Mukai (US. Patent No. 6,446,095) and further in view of Kobayakawa et. al. (US. Patent No. 6,119,078) further in view of Chong et al. (US. Patent No. 6,366,908) and further in view of Mighdoll et al. (US. Patent No. 6,505,232).

Regarding on claims 5 and 24, Page and Mukai and Chong and Kobayakawa teach the subject matter except for a monitoring unit monitoring accesses from a user and generating an access log. However, Mighdoll teaches, "the server receives the request from the user of initiating access to the server, the log-in service obtains information from the user database. This information includes the access privileges of the authorized user in relation to the other services available on the server. The server then generates an information packet containing this information, and transmits the information packet to the client" (col. 2, lines 45-54). This teaches the claimed monitoring the accesses from user and generating the access log. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to combine the teaching of Page and Mukai and Chong and Kobayakawa and Mighdoll because monitoring and generating the access log would allow the authorized user to access the system and also allow the system to keep track of the search records.

8. Claims 7-8 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Page (US. Patent No. 6,285,999) in view of Mukai (US. Patent No. 6,446,095) and further in view of Chong et al. (US. Patent No. 6,366,908) and further in view of Kobayakawa et. al. (US. Patent No. 6,119,078) and further in view of Brown et al. (US. Patent No. 6,026,398).

Regarding on claims 7 and 26, Page and Mukai and Chong anh Kobayakawa do not explicitly teach an index creating unit creating an index for accessing the document corresponding to pronunciation characters or spelling of the extracted keyword. However, Brown teaches, "these terms may be quickly compared against an index of terms created from the database" (col. 8, line 67). This teaches creating index. In addition, Brown also teaches, "the algorithm retains the first letter of each word, it may miss matches between terms such as "fish" and "Phish", which are phonetically required" (col. 3, lines 5-9). This teaches the search mainly conduct may on the pronunciations and same as the index. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to combine the teaching of Page and Mukai and Chong and Kobayakawa and Brown because allowing the system to create the index by pronunciation give the system more flexibility to conduct the search.

Regarding on claims 8 and 27, Page and Mukai and Chong and Kobayakawa do not explicitly teach the subject matter except for a selecting unit allowing the user to select a portion of the pronunciation characters or spelling of the keyword, wherein said index creating unit places less than predetermined number of documents highly

correlated with the keyword in the index based on the correlation calculated by said keyword-document correlation calculating unit, and wherein said accessing unit accesses the document based on the selected keyword. However, Brown teaches for a selecting unit allowing the user to select a portion of the pronunciation characters or spelling of the keyword, wherein said index creating unit places less than predetermined number of documents highly correlated with the keyword in the index based on the correlation calculated by said keyword-document correlation calculating unit, and wherein said accessing unit accesses the document based on the selected keyword (col. 10, lines 26-38). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to combine the teaching of Page and Mukai and Chong and Kobayakawa and Brown because allowing the system to create the index by pronunciation give the system more flexibility to conduct the search.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kutoba (US. Patent No. 5,992,737) in view of Page (US. Patent No. 6,285,999) further in view of Kobayakawa et. al. (US. Patent No. 6,119,078).

Regarding on claim 15, Kutoba teaches a document creating apparatus for creating an index of a document based on the link relation, comprising:

a keyword extracting unit extracting a keyword from the document (col. 1, lines 19-22);

an index creating unit creating a index for accessing the keyword based on pronunciation characters or spelling of the extracted keyword (col. 1, lines 17-19); and

an accessing unit accessing document assigned the link importance corresponding to the keyword when the pronunciation characters or spelling of the keyword are selected from the index (col. 20, lines 23-27).

Kutoba does not explicitly teach a link importance assigning unit assigning a link importance to the document based on the link relation and wherein said link importance assigning unit includes: URL similarity calculating unit calculating a URL similarity that is a similarity of character string of URL (Uniform Resource Locators) that represent the location of the documents and that is an appearance of written characters of URLs, wherein said link importance assigning unit calculates the link importance based on an inverse URL similarity and the link relation of the document, so that a link weight increase as URL similarity decreases. However, Page teaches, "Document A has a single back link to document C and this is the only forward link of document C, so r(A) =r(C) ... and r(A)=0.4" (col. 4, lines 51-67). This teaches the document A has link importance of 0.4. On the other hand, Kobayakawa teaches, "the phrase "a greater number of sequential partial URL character strings" means that even when more partial URL character strings corresponding to each other, unless the arrangement of the partial URL character strings do not match, the similarity is low as the result of the URL comparison..." (col. 11, lines 24-40). This teaches the URL similarity calculating and the calculation is the inverse URL similarity. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the similarity calculation of Kobayakawa into Kutoba and Page because utilizing the similarity

calculation as taught in Kobayakawa would allow the retrieval of the search result under the same root domain.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kutoba (US. Patent No. 5,992,737) in view of Fujii et al. (US. Patent No. 6,144,973) further in view of Kobayakawa et. al. (US. Patent No. 6,119,078).

Regarding on claim 17, Kutoba teaches a document index creating apparatus for creating an index of a document group having a link relation, comprising:

a keyword extracting unit extracting a keyword from the document (col. 1, lines 19-22); and

an index creating unit creating an index for accessing the document corresponding to pronunciation characters or spelling of the extracted keyword based on the link importance (col. 1, lines 17-19).

an accessing unit (access) accessing document assigned the link importance corresponding to the keyword when the pronunciation characters or spelling of the keyword are selected from the index (col. 20, lines 23-27).

Kutoba does not explicitly teach a link importance assigning unit assigning a link importance to the document depending on whether or not URL of the document are similar and wherein said link importance assigning unit includes: a URL similarity calculating unit calculating a URL similarity that is a similarity of character string of URL (Uniform Resource Locators) that represent the location of the documents and that is an appearance of written characters of URLs, wherein said link importance assigning unit calculates the link importance based on an inverse URL similarity and the link relation of

the document, so that a link weight increases as URL similarity decreases. However, Fujii teaches, "a judgment is made to specified the related documents by determining the depth of link between each of the documents specified by URLs and the first requested document, thereby making it possible to selectively receive only documents with high degree of association in advance" (col. 8, lines 34-38). This teaches the document which has highest depth is importance document. In addition, Fujii also teaches, "if a URL is included the degree of similarity between document A and ancestor document of document A is calculated (step S506)" (col. 8, line 67 and col. 9, lines 1-2). This teaches the claimed a URL similarity calculating unit calculating a URL similarity that is similarity of URLs (Uniform Resource Locators) that represent the document. On the other hand, Kobayakawa teaches, "the phrase "a greater number of sequential partial URL character strings" means that even when more partial URL character strings corresponding to each other, unless the arrangement of the partial URL character strings do not match, the similarity is low as the result of the URL comparison..." (col. 11, lines 24-40). This teaches the URL similarity calculating and the calculation is the inverse URL similarity. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the similarity calculation of Kobayakawa into Kutoba and Page because utilizing the similarity calculation as taught in Kobayakawa would allow the retrieval of the search result under the same root domain.

11. Claims 18, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Page (US. Patent No. 6,285,999) in view of Logue et al. (US. Patent No. 6,330,606) further in view of Kobayakawa et. al. (US. Patent No. 6,119,078).

Regarding on claims 18, 29 and 31, Page teaches a link list creating system for creating a link list for a document group having a link relation, comprising:

a collecting unit collecting the documents from a network (col. 3, lines 56-63);

a link importance assigning unit assigning a link importance as of the document an importance calculated based on the link relation to the documents (col. 4, lines 49-64); and

an index (index) creating unit creating a link list for listing less than a predetermined number of links to the document based on the link importance and the particular characteristic of the character string of the URL (col. 8, lines 14-17); and

Page does not explicitly teach a URL character string determining unit determining a URL having a particular characteristic of a character string from the documents and wherein said link importance assigning unit calculates the link importance based on an inverse URL similarity and the link relation of the document, so that a link weight increases as URL similarity decreases. However, Logue teaches, "the list of URL pattern 510 may be a list of strings identifying the initial potions (e.g., prefixes) of URLs to be tracked. In this example, the proxy 400 tracks hits for documents identified by URLs with a prefix that matches any of the URL patterns 510 specified in one of the site tracking list record 505" (col. 6, lines 43-48). This teaches the URL determine unit comparing the URL of the input with the URL of the document.

On the other hand, Kobayakawa teaches, "the phrase "a greater number of sequential partial URL character strings" means that even when more partial URL character strings corresponding to each other, unless the arrangement of the partial URL character strings do not match, the similarity is low as the result of the URL comparison..." (col. 11, lines 24-40). This teaches the URL similarity calculating and the calculation is the inverse URL calculation. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the similarity calculation of Kobayakawa into Kutoba and Page because utilizing the similarity calculation as taught in Kobayakawa would allow the retrieval of the search result under the same root domain.

12. Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Page (US. Patent No. 6,285,999) in view of Kobayakawa et. al. (US. Patent No. 6,119,078).

Regarding on claim 32, Page teaches a document method for searching documents linked by Uniform Resource Locator (URLs), comprising:

Assigning a link importance to the document by determining a similarity between URL to and from a document with said link importance being on an inverse URL similarity and the link relation of the document, so that a link weight increase as URL similarity decreases (document r(A)=0.4, r(B)=0.3) and r(C)=0.4) (col. 4, lines 49-64); and

Accessing the document based on the link importance link (col. 7, lines 53-55).

Page does not explicitly teach determining a similarity between URL to and form a document with said link importance being on an inverse URL similarity and the link relation of the document, so that a link weight increase as URL similarity decreases. However, Kobayakawa teaches, "the phrase "a greater number of sequential partial URL character strings" means that even when more partial URL character strings corresponding to each other, unless the arrangement of the partial URL character strings do not match, the similarity is low as the result of the URL comparison..." (col. 11, lines 24-40). This teaches the URL similarity calculating is also the inverse of URL similarity calculation. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the similarity calculation of Kobayakawa into Page in order to would allow the retrieval of the search result under the same root domain.

Regarding on claims 33 and 34, Page teaches a document searching apparatus for searching a document group having a link relation for a document, comprising:

A link importance assigning unit weighting the link relation and assigning link importance which indicates importance of the document based on the weighted link relation to the document, said link importance assigning unit comprising a similarity calculating unit calculating a URL similarity that is a similarity URLs (Uniform Resource Locators) that represent the location of the documents and that is an appearance of written characters of URLs and said link importance assigning unit calculates the link

importance based on the URL similarity and the link relation of the document (document r(A)=0.4, r(B)=0.3) and r(C)=0.4) (col. 4, lines 49-64); and

An accessing unit accessing the document based on the link importance (col. 7, lines 54-56).

Page does not explicitly teach determining a similarity between URL to and form a document with said link importance being on an inverse URL similarity and the link relation of the document, so that a link weight increase as URL similarity decreases. However, Kobayakawa teaches, "the phrase "a greater number of sequential partial URL character strings" means that even when more partial URL character strings corresponding to each other, unless the arrangement of the partial URL character strings do not match, the similarity is low as the result of the URL comparison..." (col. 11, lines 24-40). This teaches the URL similarity calculating is also the inverse of URL similarity calculation. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the similarity calculation of Kobayakawa into and Page in order to would allow the retrieval of the search result under the same root domain.

Regarding on claim 35, Page teaches a document searching method for searching document linked by Uniform Resource Locators (URLs), comprising:

Assigning link importance to linked document by determining a similarity between URLs to and from the documents (col. 4, lines 20-47); and

Ranking and accessing the document based on the link importance (col. 4, lines 20-47).

Page does not explicitly teach determining a similarity between URLs to and from the document. However, Kobayakawa teaches, "the phrase "a greater number of sequential partial URL character strings" means that even when more partial URL character strings corresponding to each other, unless the arrangement of the partial URL character strings do not match, the similarity is low as the result of the URL comparison..." (col. 11, lines 24-40). This teaches the URL similarity calculating. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the similarity calculation of Kobayakawa into Page in order to allow the retrieval of the search result under the same root domain.

Allowable Subject Matter

13. Claim 13 is allowed over prior art made of record.

The following is a statement of reasons for the indication of allowable subject matter: None of prior art alone or incombination neither teach nor suggest "a link importance assigning unit weighting the link relation and assigning link importance which indicates importance of the document based on the weighted link relation to the document; and

An accessing unit accessing the document based on the link importance, and wherein said link importance of the document based on the link importance, and wherein said link importance assigning unit includes:

URL similarity calculating unit calculating a URL similarity that is a similarity of character strings of URLs (Uniform Resource Locators) that represent the location of the documents and that is an appearance of written

characters of URLs, wherein said link importance assigning unit calculates the link importance based on the URL similarity and the link relation of the document and

Wherein the link importance of each document is defined as a solution of the following simultaneous linear equation (1), assuming the Cq is constant (the lower limit of the importance that depends on each page) for each p∈DOC and that when a page is linked to a page q, the link weight lw (p, q) is defined by the formula (2);

$$Wq = Cq + \sum_{p \in Re fed(q)} Wp * lw(p,q) \quad \ldots \quad (1)$$

$$Lw(p,q)=diff(p,q)/\sum diff(p,I)= 1/\overline{sim(p,q)\sum_{i \in Ref(p)} 1/sim(p,i)} \quad \ldots \quad (2)$$

Wherein DOC = {p1, p2, ..., pN} is a set of documents calculated for the link importance; Wp is the link importance of the page p; Ref(p) is a set of pages linked from the page p; Ref(p) is a set of pages linking to the page p; sim(p, q) is the URL similarity of the pages p and q; diff(p, q) =1/sim (p, q) is the difference (col. 6, lines 5-10).

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is (703) 305-1949 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at (703) 305-9790.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(703) 872-9306 [Official Communication]

Hand-delivered responses should be brought to:

Crystal Park II
2121 Crystal Drive
Arlington, VA 22202
Fourth Floor (Receptionist).

Baoquoc N. To
April 30, 2004

JEAN M. CORRIELUS
PRIMARY EXAMINER